

Delegation from the Dominican Republic on the occasion of the «Intersolar Europe 2018» trade fair in Munich, Germany

17 - 23 June 2018



Solar PV plant with 30 megawatts in the province of Monte Plata, Dominican Republic. (Image: eldia.com.do)



On behalf of



Federal Ministry for the
Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany

11 representatives from the Dominican Republic come to Munich to learn more about renewable energies in Europe

Targets of the information trip

1. Information on latest developments in the following fields:

- Solar PV and solar thermal energy
- Battery storage systems
- Biogas & Waste to energy
- Hybrid renewable energy plants
- Smart microgrid concepts (off-grid and on-grid)



2. Establishing of contacts to relevant authorities, suppliers and specialized companies in Germany and Europe.



Participants and involved institutions

Participants from the Dominican Republic

11 representatives from...

- Governmental authorities
- Energy associations
- State-owned energy companies



Involved institutions from Germany

- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- Bundesverband Solarwirtschaft (BSW-Solar)
- Büro F (Consultancy and support)



Participants in detail - Governmental authorities and energy associations



Ministerio de Energías y Minas (MEM) - *Ministry of Energy and Mines*
Mario Miranda - Renewable Energy Management Analyst



Comisión Nacional de Energía (CNE) - *National Energy Commission*
Juan Vásquez - Wind Energy Analyst



Corporación Dominicana de Empresas Eléctricas Estatales (CDEEE) – *Dominican Corporation of State Electric Companies*
Hugo Morales - Manager of the Renewable Energy Department



Superintendencia de Electricidad (SIE) - *Superintendence of Electricity*
Daniel Ramirez - Director Wholesale Electricity Market



Asociación para el Fomento de Energías Renovables (ASOFER) - *Association for the Promotion of Renewable Energies*
Raúl Aguayo – Secretario



Asociación Dominicana de la Industrial Eléctrica (ADIE) - *Dominican Association of the Electrical Industry*
Manuel Cabral - Executive vice-president



Unidad de Electrificación Rural y Sub-urbana (UERS) - *Unit of Rural and Sub-urban Electrification*
Bienvenido Sanchez - Manager Photovoltaic Energy

Participants in detail – State-owned energy companies



EDENORTE (Distribution Network Operator)
Gregorio Ortega - Purchase Director Energy and Regulation



EDEESTE (Distribution Network Operator)
Augusto Bello Richardson - Purchase Director Energy and Regulation



EDESUR (Distribution Network Operator)
Miguel José Santana Rojas - Regulatory Risk Analysis



ETED

EMPRESA DE TRANSMISION ELECTRICA DOMINICANA
Uniendo el País con Energía

ETED (Transmission System Operator)
Gil Sandro Gómez - Operation Assurance Coordinator

The planned meetings cover a broad range of topics that are of high relevance for the Dominican solar and storage market

Planned itinerary

Monday, 18 June 2018: Introductory workshop in Munich and meetings in Freising

- Overview on solar energy and storage policies and markets in Germany and other countries
- Visit of the German Biogas Association and a local solar PV installer



Tuesday, 19 June 2018: Memmingen & Wildpoldsried

- Visit of renewable offgrid solutions supplier
- Visit of the “Energy Village” of Wildpoldsried (together with an innovative grid integration company)



Wednesday, 20 June to Friday, 23 June

- Visit of the international trade fairs “Intersolar Europe 2018” and “ees 2018”
- Conference events and bilateral meetings with exhibitors

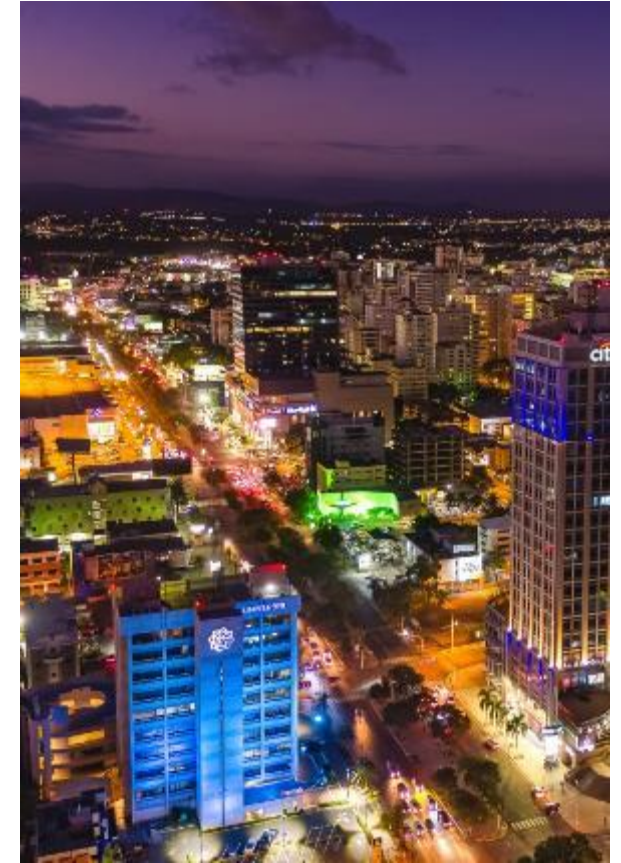
Dominican Republic has strong economic growth and is attractive for international Investors

General economic indicators

- Real GDP growth of 6.6% in 2016
- Since 2015, the Dominican Republic has the strongest economic growth in Latin America.
- Attractive environment for international investors.
- Rating agencies Moody's and Fitch classify the Dominican Republic as stable: Moody's (B1 on 30.06.2016); Fitch (BB- on 18.11.2016)
- Economic Partnership Agreement CARIFORUM with the EU
- Democratic state with a government elected under the parameters of a modern constitution.

BUT:

- The country suffers from significant income inequality; the poorest half of the population receives less than 20% of GDP, while the richest 10% receive almost 40% of GDP.



City of Santo Domingo, Dominican Republic

Dominicans have high ambitions in renewable energies...

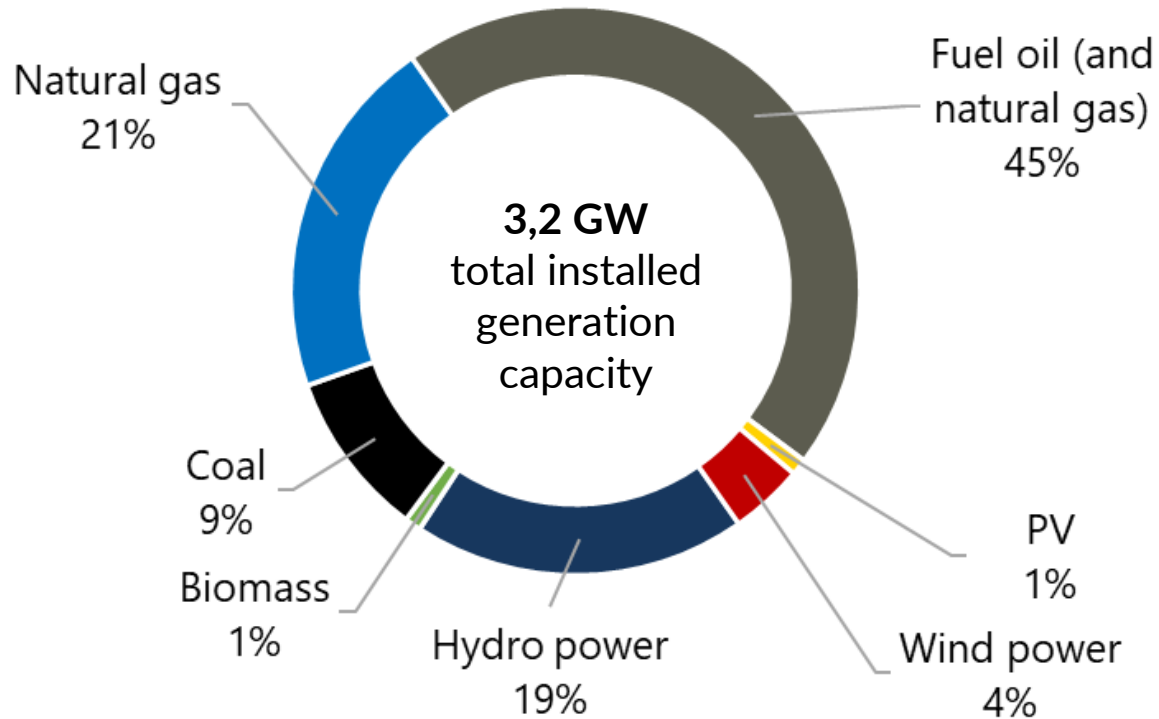
Energy goals of Dominican government

- The Dominican Republic is the third largest consumer of energy in the Caribbean.
- The national development plan for the energy market gives renewable energies a clear priority.
- Objectives of the Renewable Energy Act No. 57-07 and its implementing regulations:
 - Increase energy diversity in the country, Reduction of dependence on imported fossil fuels
 - 25 % of renewable electricity production until 2025
 - Stimulating private investment in renewable energy
 - Mitigate the negative environmental impacts of energy production from fossil fuels
 - Encourage investment in community social projects

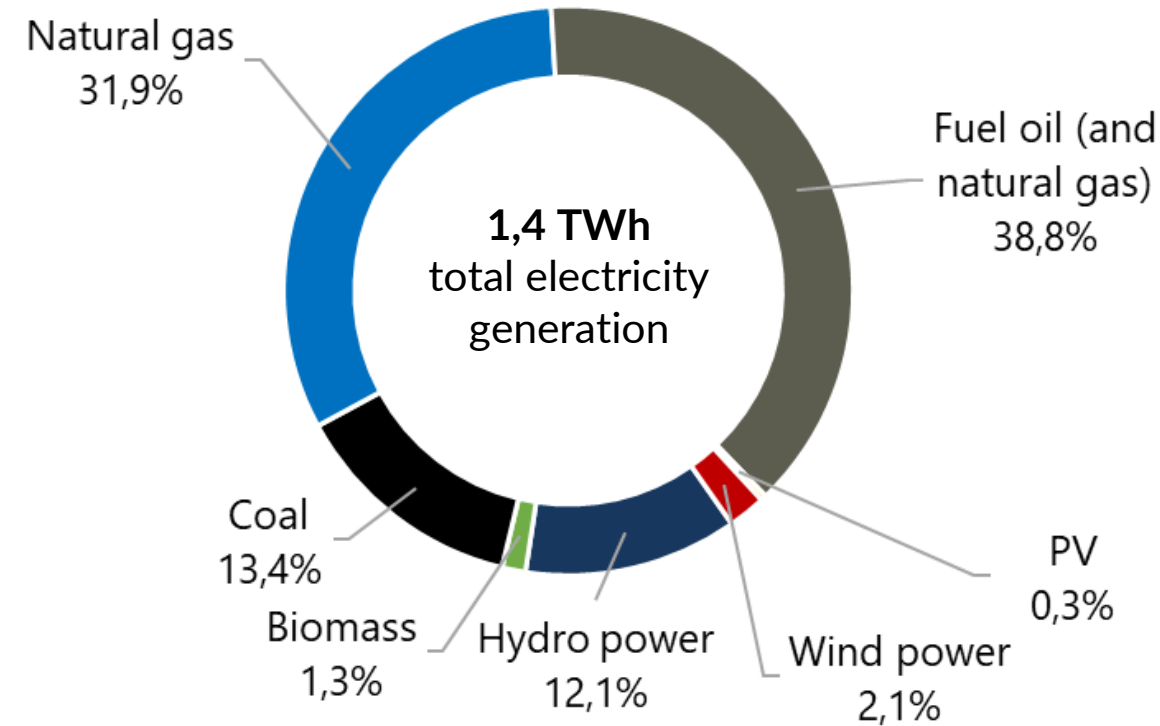


...but fossil fuels are still dominant

Electricity generation capacity (March 2018)



Electricity generation (March 2018)



Promotion and tax benefits for Solar PV

Overview of some promotion tools for Solar PV

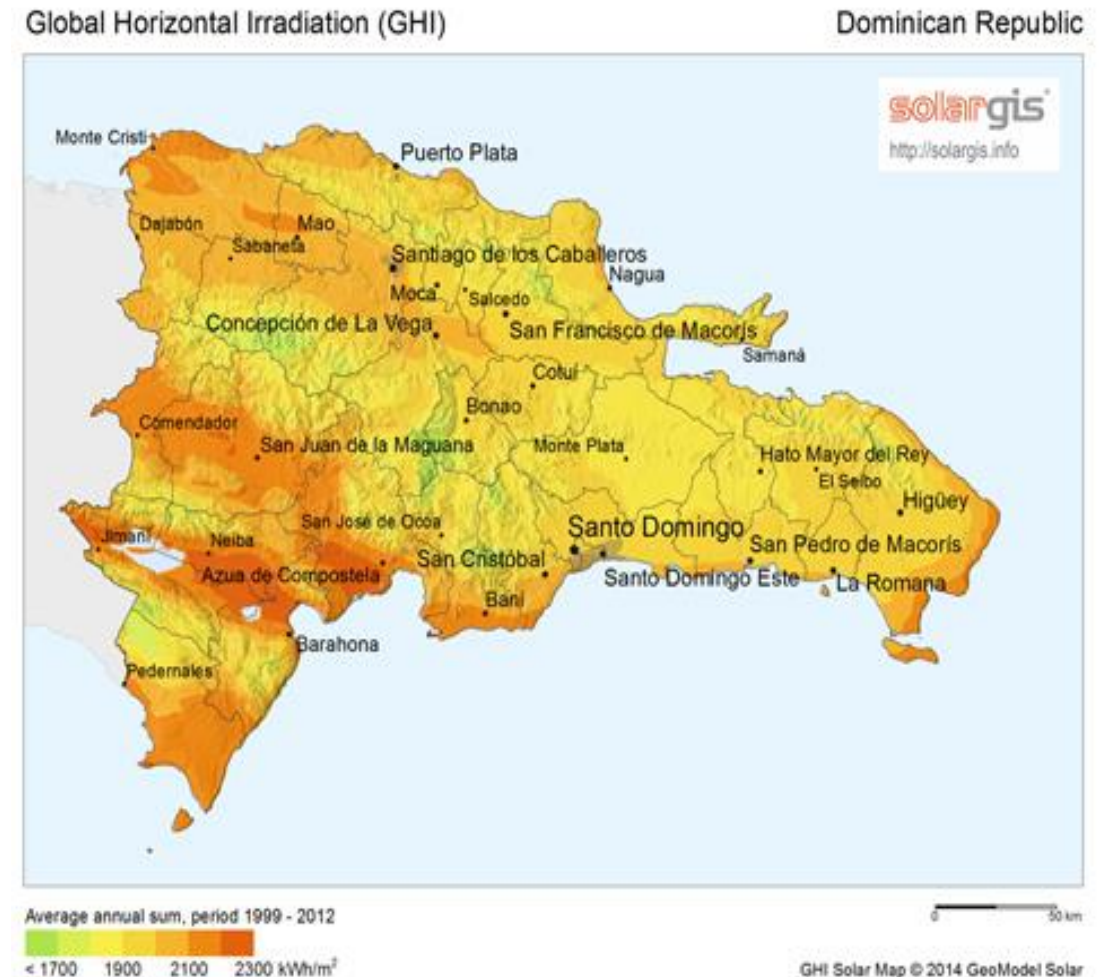
- Net metering for private systems up to 25 kW and commercial systems up to 1 MW
 - No import duties or VAT on equipment and materials for the use of renewable energy sources
 - Tax reductions for debt financing
 - Community projects with renewable energies with up to 500 kW can benefit from low-interest-rate financing for up to 75% of the total cost.
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- Electricity price industry = 19,4 Eurocent / kWh (2015)
 - Electricity price end user = 17,6 Eurocent / kWh (2015)



High potential for solar energy - Global Horizontal Irradiation between 1.700 - 2.300 kWh/m²*a

Development of solar PV projects in Dominican Republic

- Solar PV plant “Monte Plata Solar” => 30 MWp (completed March 2016) Expansion to 60 MWp ongoing
- Program for the electrification of rural areas => in the municipality of "Los Veintiuno" in Arroyo del Toro, 32 solar PV systems are installed for families.
- In 2017, the Corporación Dominicana de Empresas Eléctricas Estatales (CDEEE) announced investments of 250 million US-Dollar in new solar parks.
- **Planned projects in 2018**
 - „Parque Solar Montecristi Solar“ => 58 MWp
 - „Parque Fotovoltaico WCG“ => 50 MWp
 - „Canoa Solar“ => 25 MWp



20 MW of energy storage strengthen Dominican power grid

AES Dominicana, the Dominican unit of U.S.-based AES Corporation has put into operation 20 MW of storage battery systems

- In late August 2017, AES Dominicana commissioned two 10MW energy storage facilities based on lithium-ion batteries.
- These 20MW of energy storage assisted the island nation in keeping power supplies running during Hurricane Irma and Hurricane Maria.
- AES said the projects, both in the Santo Domingo region, “played a key role in maintaining grid stability” as both Irma and then Hurricane Maria struck.



GIZ, DEG and sequa implement the “develoPPP program” that aims at paving German companies the way into new markets

Financial support for market entry

- In the scope of the develoPPP.de program of the German federal government, the market entry of German companies is supported by funds up to 200,000 EUR for marketing and dissemination projects.
- develoPPP.de was set up by the German Federal Ministry for Economic Cooperation and Development (BMZ) to foster the involvement of the private sector at the point where business opportunities and development policy initiatives intersect.

develoPPP.de



Büro F is the renewable energy technology bridge between Europe and Southern America



Partners & Customers



- Büro F is a consulting company specializing in renewable energies and distributed power markets.
- We prepare market reports on technologies and business models in the power sector.
- Based on our broad contact network in Europe and Latin America, we put renewable energy innovators in touch with potential customers and relevant stakeholders.
- Büro F was founded by Stephan Franz in 2014 and is part of the consulting network Marienstr. 25 in Berlin.

Please get back to us, if you have any further questions.

¡Muchas Gracias!



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